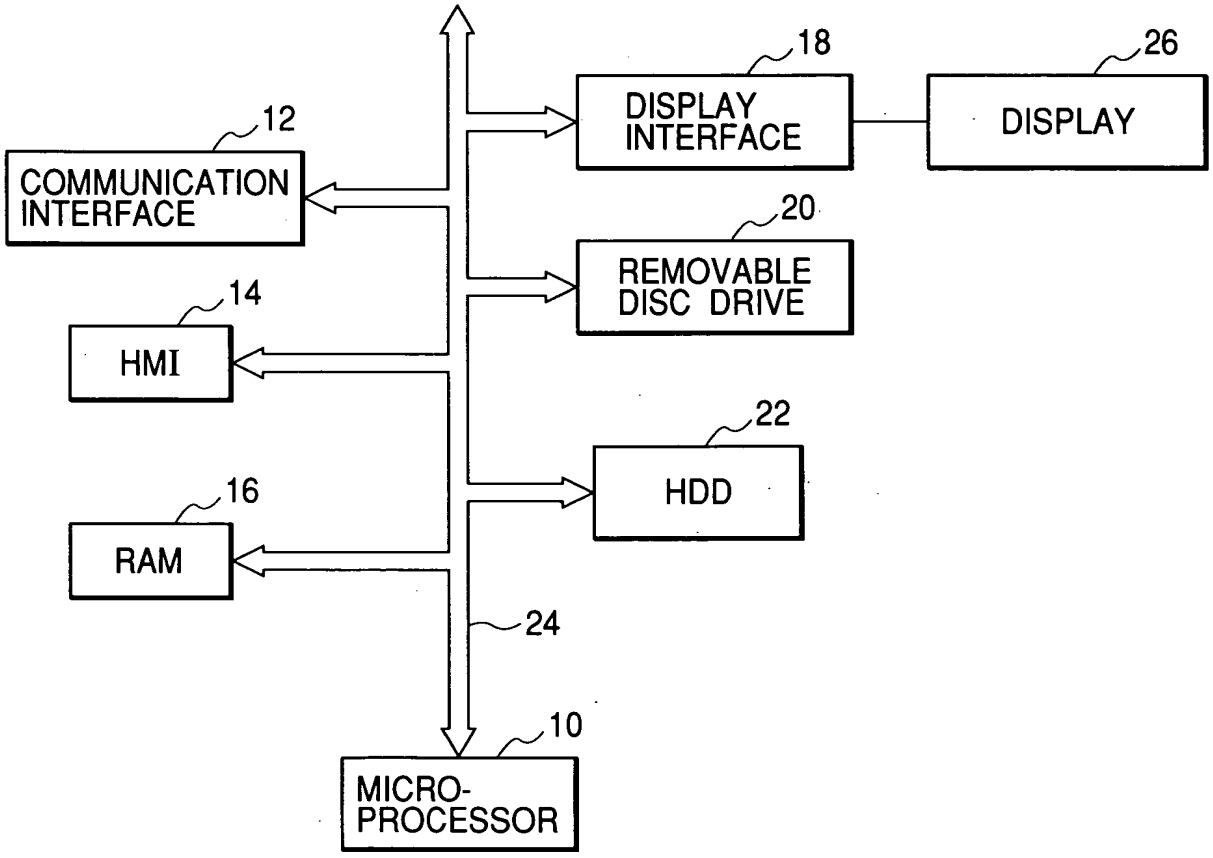
FIG. 1


18
DISPLAY INTERFACE
26
DISPLAY
12
COMMUNICATION INTERFACE
20
REMOVABLE DISC DRIVE
14
HMI
22
HDD
16
RAM
24
10
MICRO-PROCESSOR

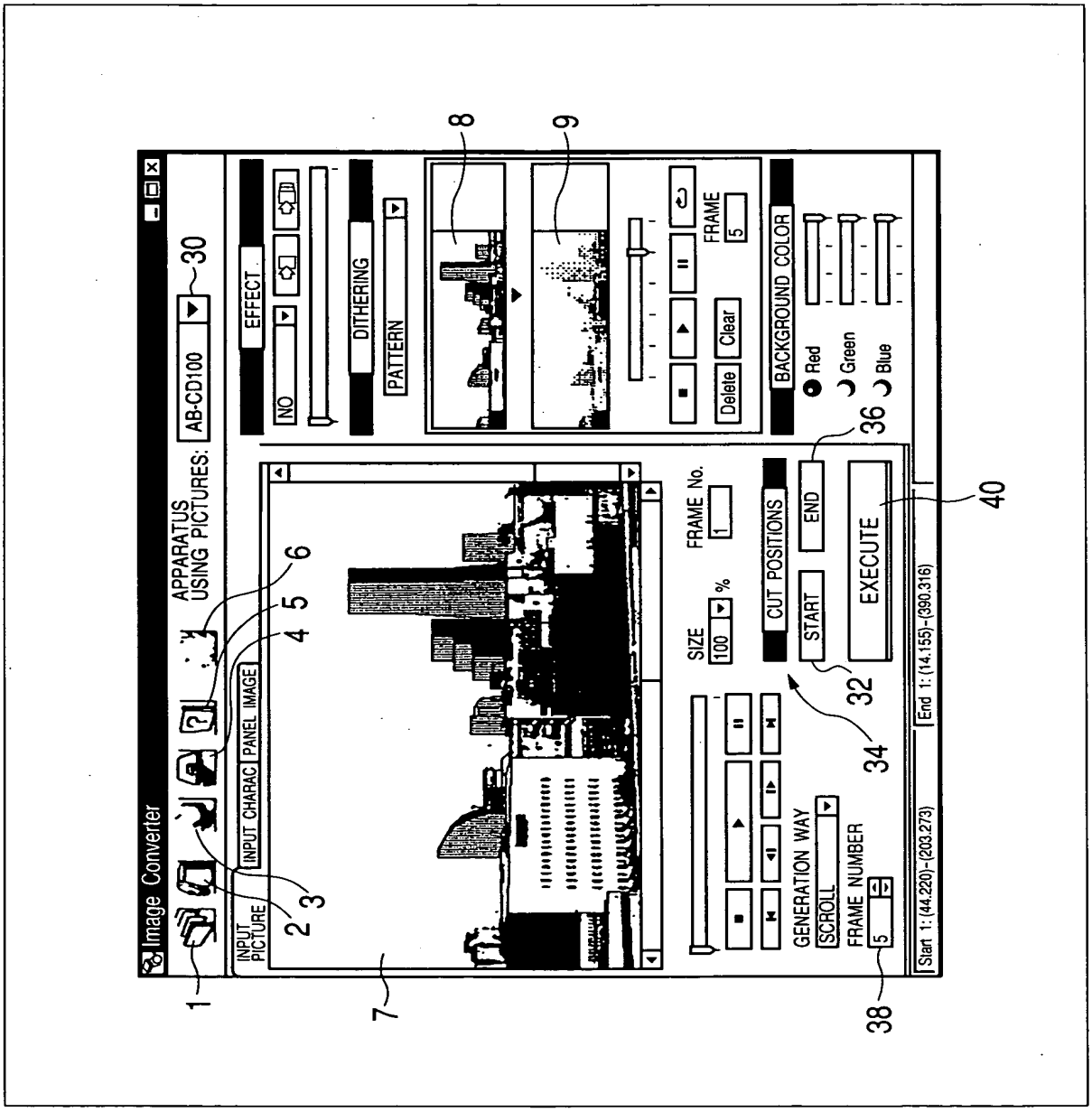


Image Converter
APPARATUS USING PICTURES:
AB-CD100
30
EFFECT
NO
DITHERING
PATTERN
8
9
FRAME
5
Delete
Clear
BACKGROUND COLOR
Red
Green
Blue
36
INPUT PICTURE
INPUT CHARAC
PANEL IMAGE
1
2
3
4
5
6
7
SIZE
100
%
FRAME No.
1
CUT POSITIONS
START
END
32
34
EXECUTE
40
GENERATION WAY
SCROLL
FRAME NUMBER
5
38
Start 1: (44,220)-(203,273)
End 1: (14,155)-(390,316)

FIG. 2

FIG. 3

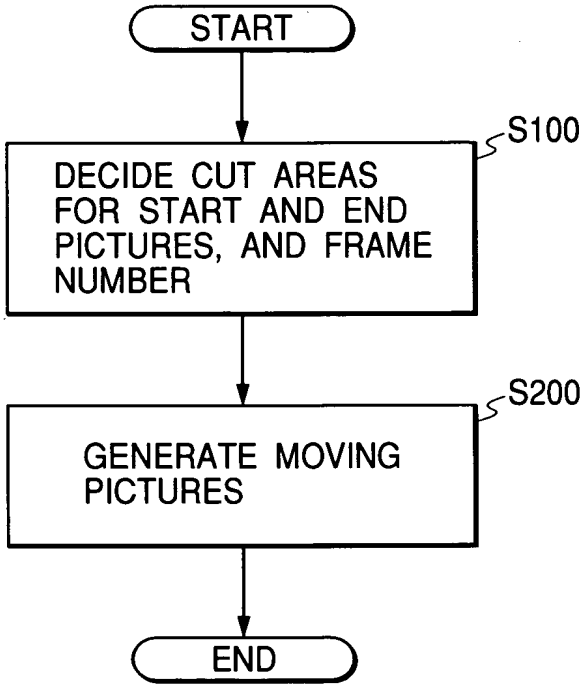

START
S100
DECIDE CUT AREAS FOR START AND END PICTURES, AND FRAME NUMBER
S200
GENERATE MOVING PICTURES
END

FIG. 4

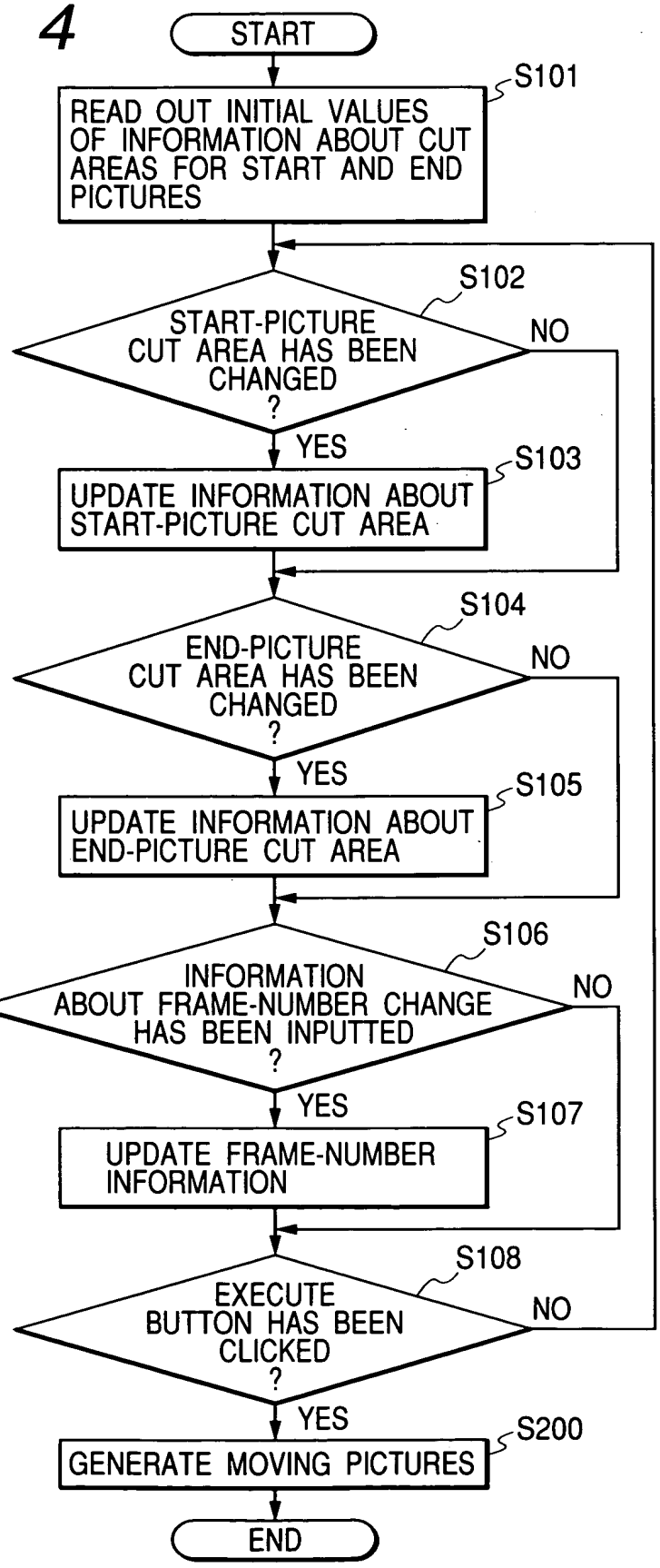

START
S101
READ OUT INITIAL VALUES OF INFORMATION ABOUT CUT AREAS FOR START AND END PICTURES
S102
START-PICTURE CUT AREA HAS BEEN CHANGED ?
NO
YES
S103
UPDATE INFORMATION ABOUT START-PICTURE CUT AREA
S104
END-PICTURE CUT AREA HAS BEEN CHANGED ?
NO
YES
S105
UPDATE INFORMATION ABOUT END-PICTURE CUT AREA
S106
INFORMATION ABOUT FRAME-NUMBER CHANGE HAS BEEN INPUTTED ?
NO
YES
S107
UPDATE FRAME-NUMBER INFORMATION
S108
EXECUTE BUTTON HAS BEEN CLICKED ?
NO
YES
S200
GENERATE MOVING PICTURES
END

FIG. 5

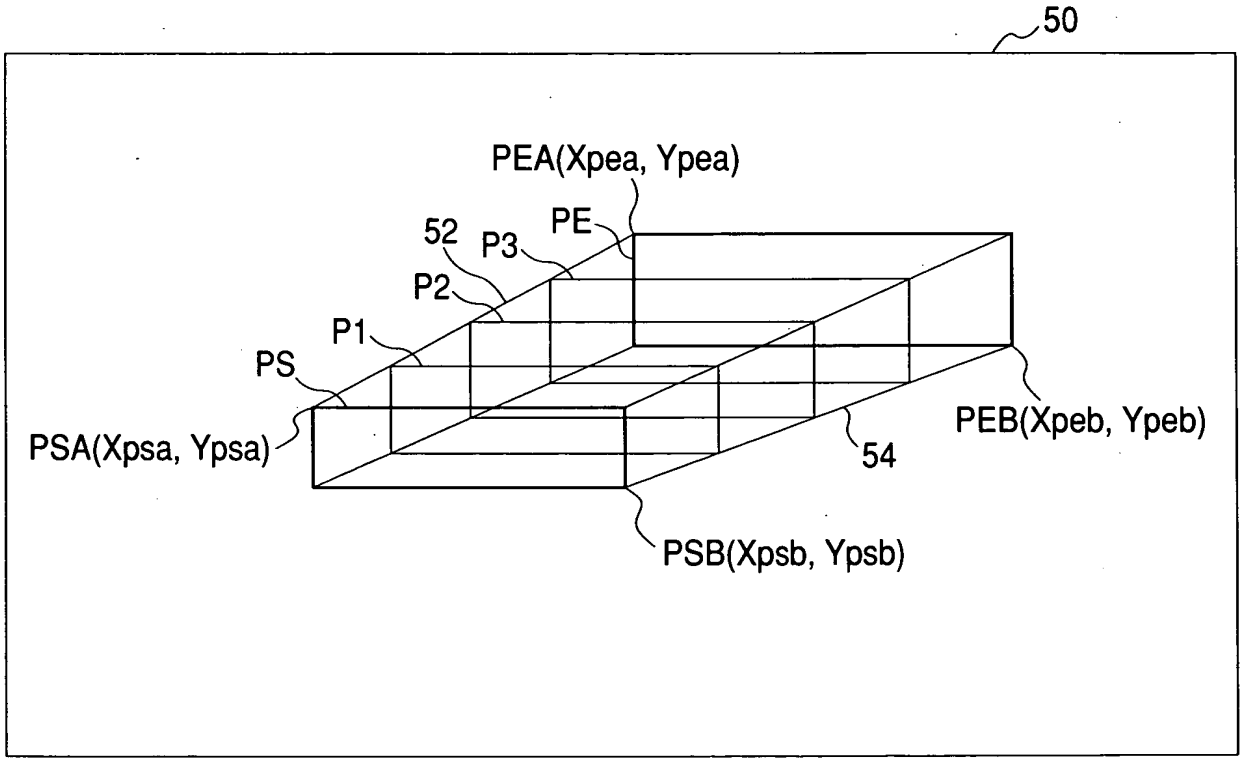

50
PEA(Xpea, Ypea)
PE
52
P3
P2
P1
PS
PSA(Xpsa, Ypsa)
54
PEB(Xpeb, Ypeb)
PSB(Xpsb, Ypsb)

FIG. 6

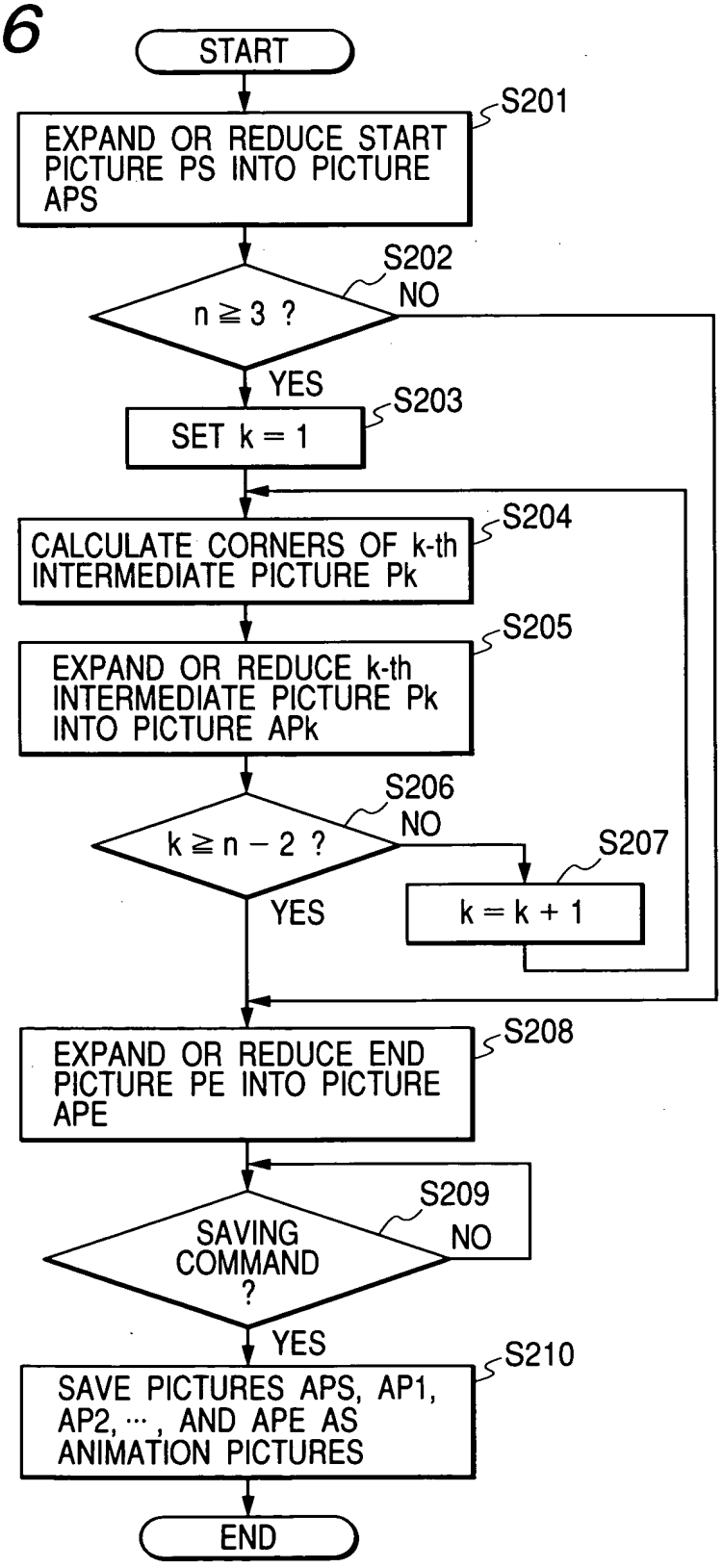

START
S201
EXPAND OR REDUCE START PICTURE PS INTO PICTURE APS
S202
n ≧ 3 ?
NO
YES
S203
SET k = 1
S204
CALCULATE CORNERS OF k-th INTERMEDIATE PICTURE Pk
S205
EXPAND OR REDUCE k-th INTERMEDIATE PICTURE Pk INTO PICTURE APk
S206
k ≧ n − 2 ?
NO
YES
S207
k = k + 1
S208
EXPAND OR REDUCE END PICTURE PE INTO PICTURE APE
S209
SAVING COMMAND ?
NO
YES
S210
SAVE PICTURES APS, AP1, AP2, ··· , AND APE AS ANIMATION PICTURES
END

FIG. 7

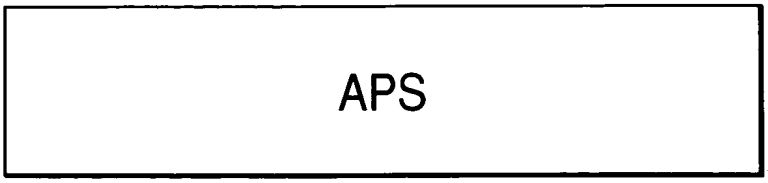


FIG. 8

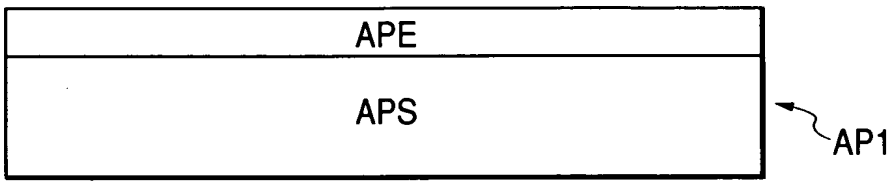


FIG. 9

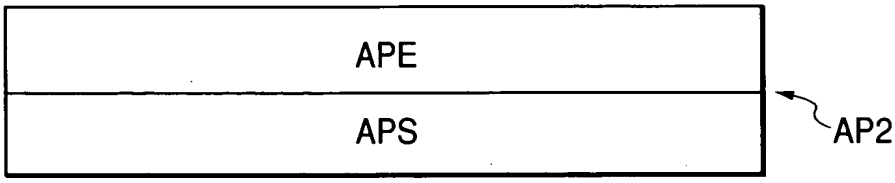


FIG. 10

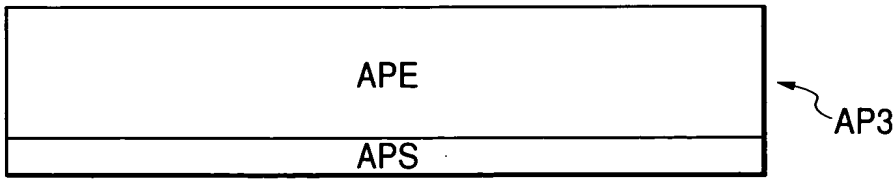


FIG. 11

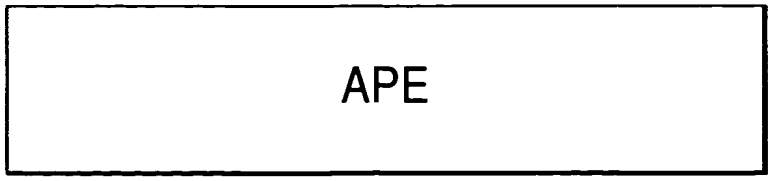


FIG. 12

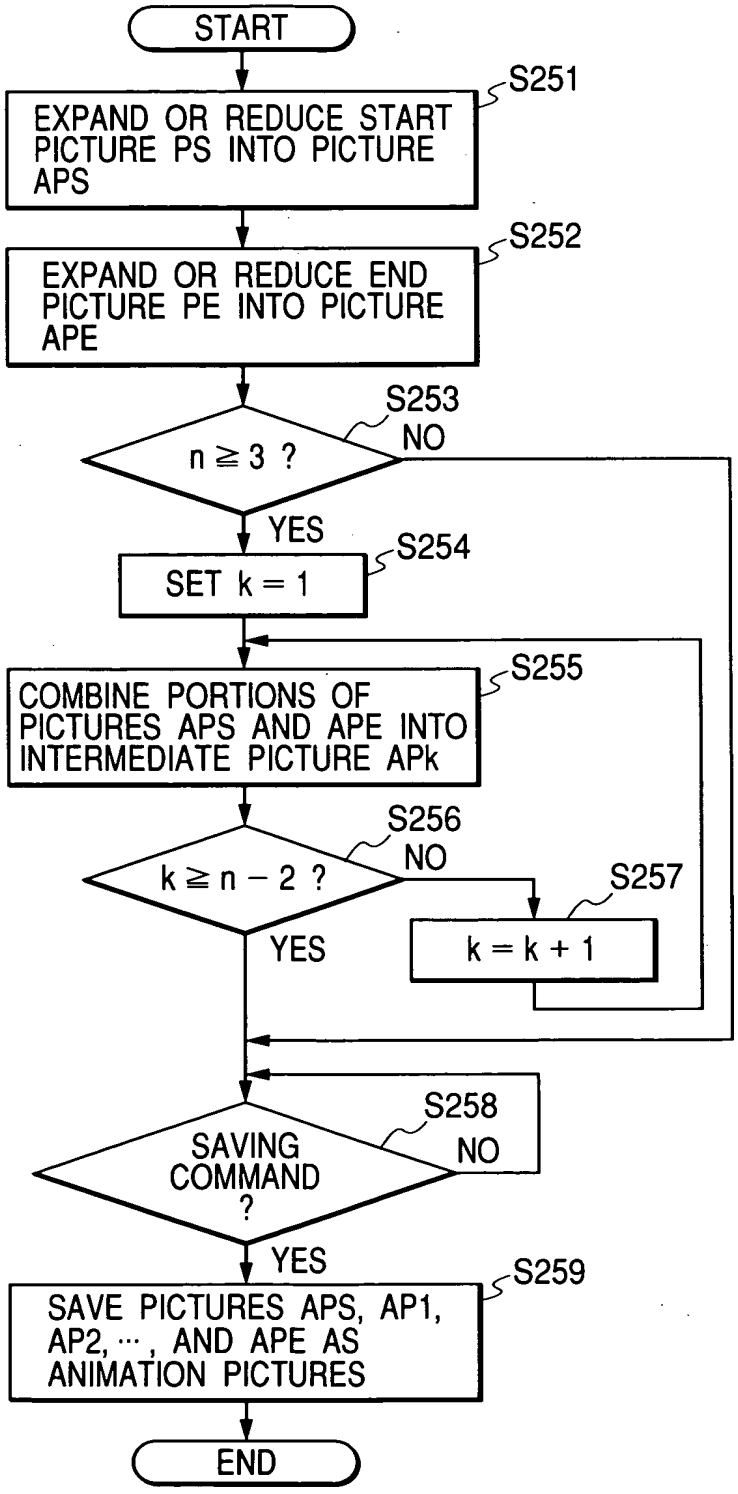

START
EXPAND OR REDUCE START PICTURE PS INTO PICTURE APS
S251
EXPAND OR REDUCE END PICTURE PE INTO PICTURE APE
S252
n ≧ 3 ?
S253
NO
YES
SET k = 1
S254
COMBINE PORTIONS OF PICTURES APS AND APE INTO INTERMEDIATE PICTURE APk
S255
k ≧ n − 2 ?
S256
NO
YES
k = k + 1
S257
SAVING COMMAND ?
S258
NO
YES
SAVE PICTURES APS, AP1, AP2, ···, AND APE AS ANIMATION PICTURES
S259
END

FIG. 13

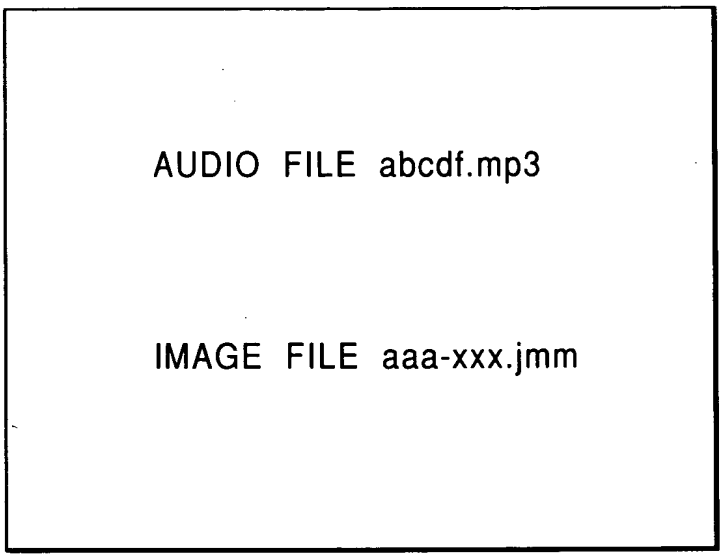

AUDIO FILE abcdf.mp3
IMAGE FILE aaa-xxx.jmm

FIG. 14

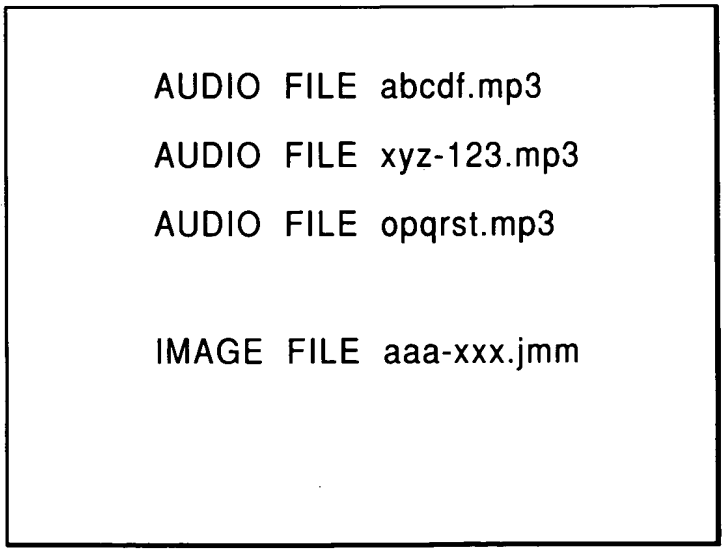

AUDIO FILE abcdf.mp3
AUDIO FILE xyz-123.mp3
AUDIO FILE opqrst.mp3
IMAGE FILE aaa-xxx.jmm

FIG. 15

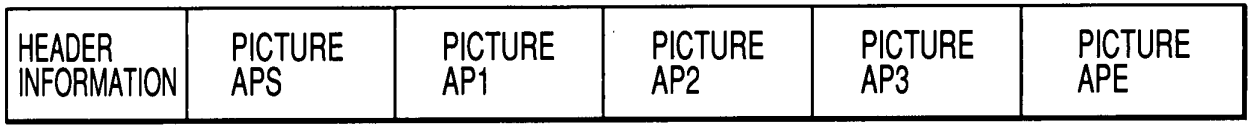


FIG. 16

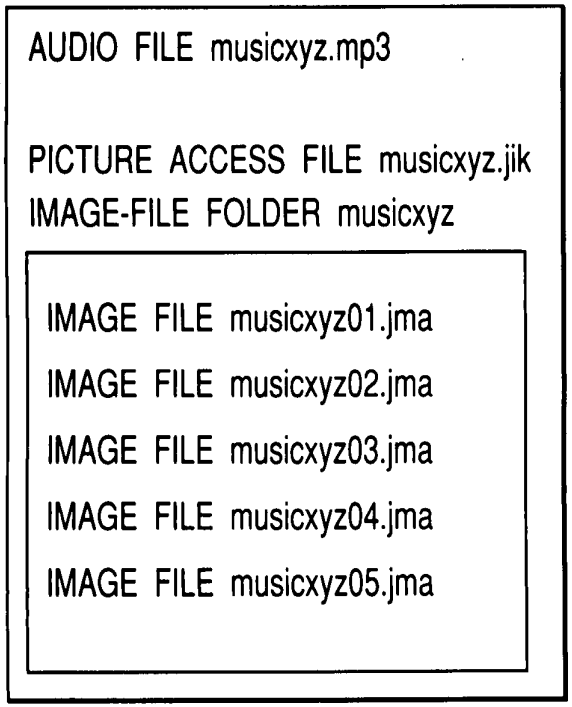


FIG. 17

FIG. 18

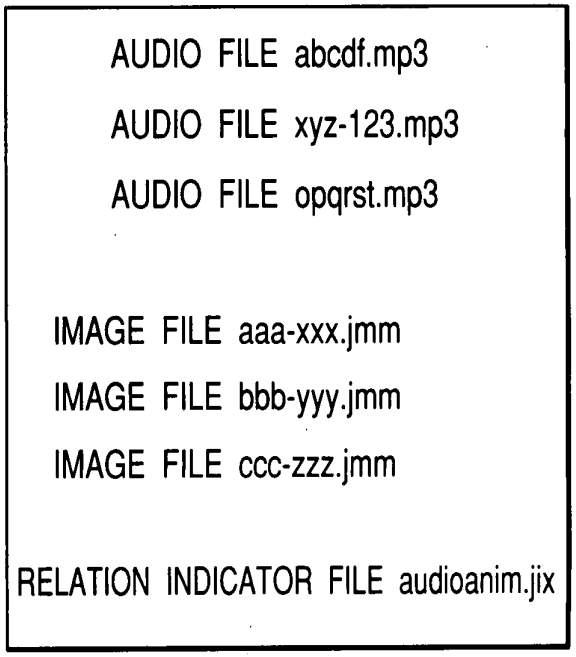


FIG. 19

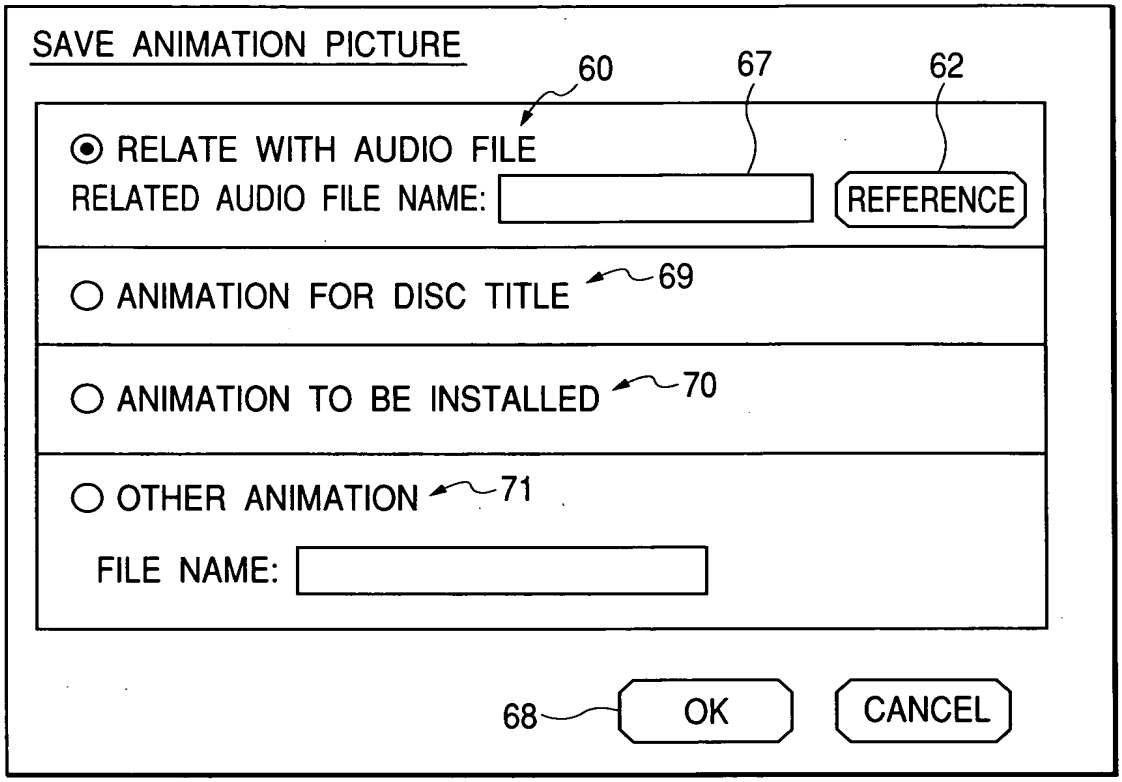

SAVE ANIMATION PICTURE
60
67
62
RELATE WITH AUDIO FILE
RELATED AUDIO FILE NAME:
REFERENCE
ANIMATION FOR DISC TITLE
69
ANIMATION TO BE INSTALLED
70
OTHER ANIMATION
71
FILE NAME:
68
OK
CANCEL

FIG. 20

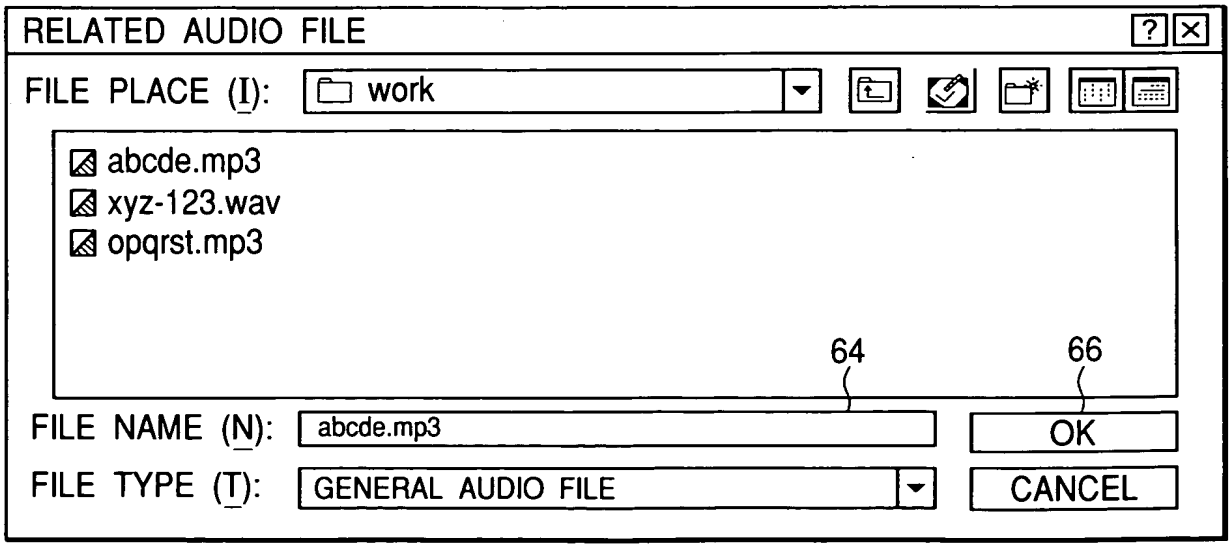

RELATED AUDIO FILE
FILE PLACE (I):
work
abcde.mp3
xyz-123.wav
opqrst.mp3
64
66
FILE NAME (N):
abcde.mp3
OK
FILE TYPE (T):
GENERAL AUDIO FILE
CANCEL

FIG. 21

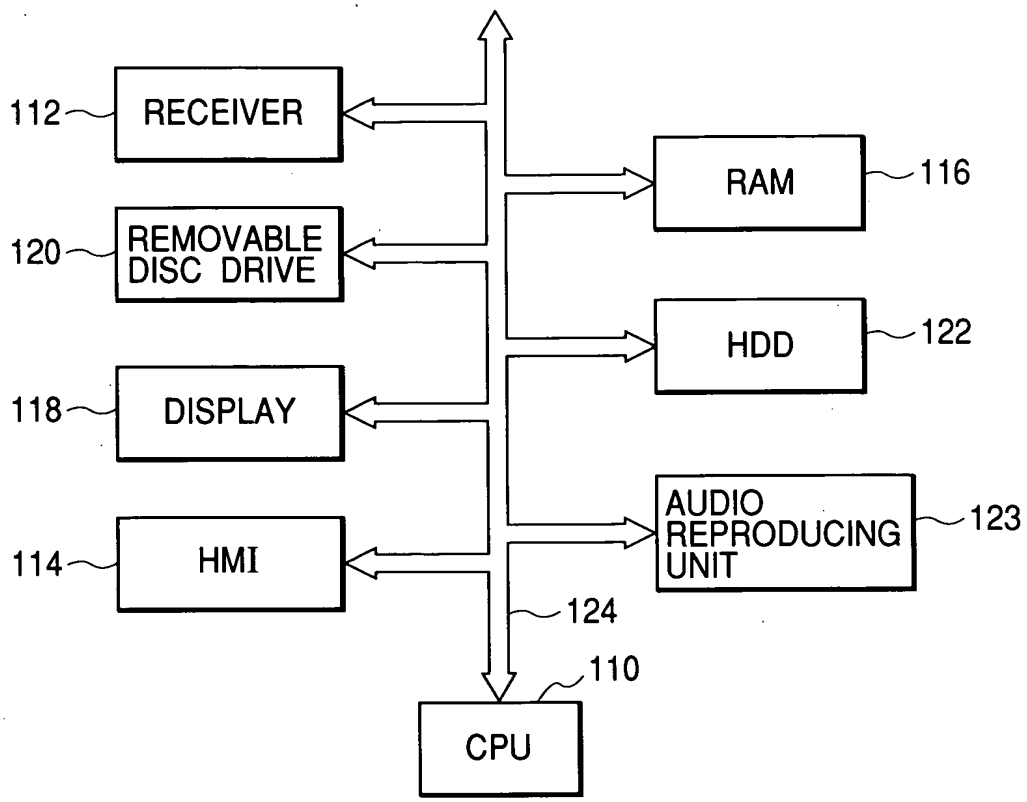

112
RECEIVER
120
REMOVABLE DISC DRIVE
118
DISPLAY
114
HMI
RAM
116
HDD
122
AUDIO REPRODUCING UNIT
123
124
110
CPU

FIG. 22

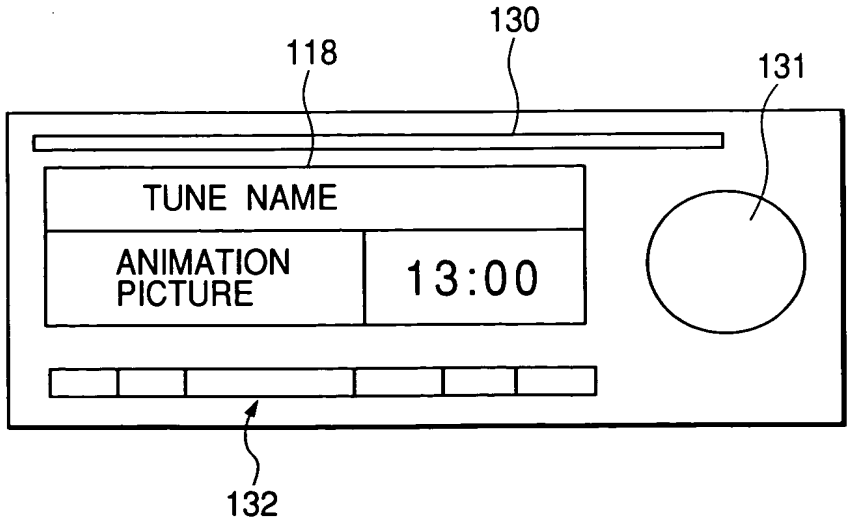
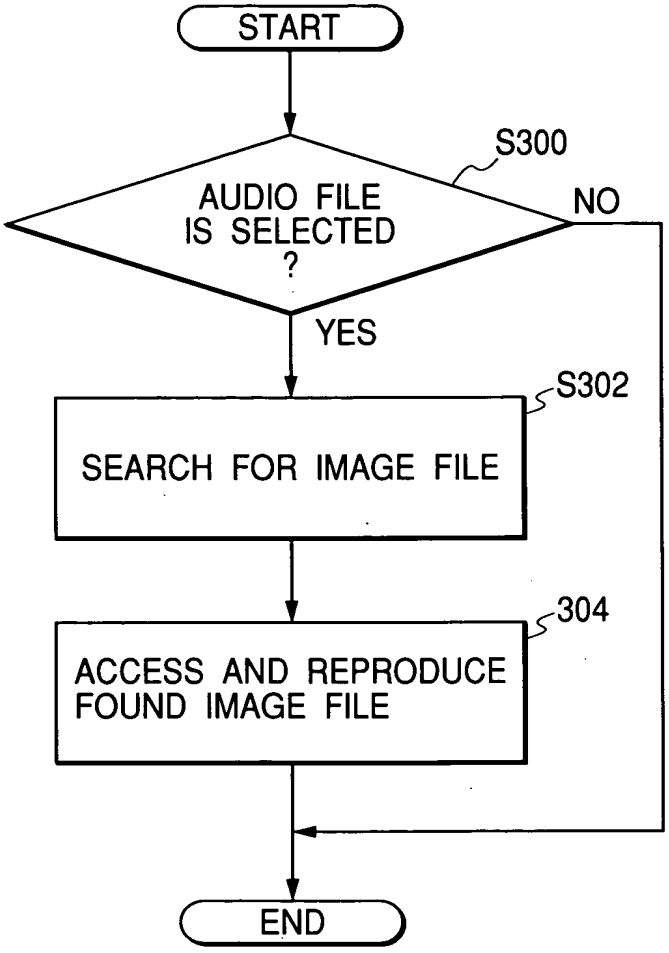

118
130
131
TUNE NAME
ANIMATION PICTURE
13:00
132

FIG. 23


START
S300
AUDIO FILE IS SELECTED ?
NO
YES
S302
SEARCH FOR IMAGE FILE
304
ACCESS AND REPRODUCE FOUND IMAGE FILE
END